

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference SC(PCT)-80	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/016331	International filing date (day/month/year) 19 December 2003 (19.12.2003)	Priority date (day/month/year) 21 January 2003 (21.01.2003)
International Patent Classification (IPC) or national classification and IPC C08L 29/10, C08J 3/12, C08L 35/00, H01M 2/10, B32B 27/28, C08G18/62		
Applicant SONY CHEMICALS CORP.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input checked="" type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

Date of submission of the demand 27 January 2004 (27.01.2004)	Date of completion of this report 26 August 2004 (26.08.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

Translation

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/016331

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

A matter common to claims 1-17 is a reference to a resin prepared by crosslinking a methyl vinyl ether-maleic anhydride copolymer with a multifunctional isocyanate compound disclosed in claim 1.

As a result of examination, however, it is found that a resin prepared by crosslinking a methyl vinyl ether-maleic anhydride copolymer with a multifunctional isocyanate compound is described in documents 1 and 2 (Document 1: the claims; page 2, upper right column, line 5 to page 3, upper left column, line 18, and page 5, upper right column, line 12 to lower left column, line 9. Document 2: the claims; page 3, upper left column, line 19 to page 4, lower right column, line 14; page 5, lower right column, line 7 to page 7, lower left column, line 5, and page 8, lower left column, line 3 to lower right column, line 12). Therefore, the resin does not appear to be novel.

This being the case, the resin of claim 1 does not go beyond the range of prior art and so this common matter does not appear to be a specific technical feature in the sense of the second sentence of PCT Rule 13.2.

On the assumption as stated above, the subject matters of claims 1-17 would be as follows.

The subject matters of claims 1-5 and 16 are a liquid-absorbing composite characterized by containing powder of the said publicly known resin and a binder resin, and a nonaqueous electrolyte battery pack using the said liquid-absorbing composite as an electrolytic solution-absorbing member.

The subject matters of claims 12-15 relate to the method for preparing the said publicly known crosslinked resin characterized in that a methyl vinyl ether-maleic anhydride copolymer is dissolved into a solvent having an SP value of 9 to 14 so as to make the weight percentage of the liquid-absorbing crosslinked resin 3 to 35 and adding a multifunctional isocyanate compound to the solution to allow crosslinking reaction.

The subject matters of claims 6-11 and 17 relate to a liquid-absorbing sheet characterized in that the said publicly known resin layer is formed on one side of a support base, and a nonaqueous electrolyte battery pack using the liquid-absorbing sheet as an electrolytic solution-absorbing member.

Thus, there is no common matter to all claims.

Since there is no other common matter considered to be a special technical feature in the sense of the second sentence of PCT Rule 13.2, no technical relationship in the sense of PCT Rule 13 is found among those different inventions.

Accordingly, the subject matters of claims 1-17 do not meet the requirement of unity of invention.

4. Consequently, this report has been established in respect of the following parts of the international application:

- ☒ all parts.
- ☐ the parts relating to claims Nos. _____

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/16331

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-5, 12-17	YES
	Claims	6-11	NO
Inventive step (IS)	Claims	1-5, 12-17	YES
	Claims	6-11	NO
Industrial applicability (IA)	Claims	1-17	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Document 1: JP, 58-46959, A (Nitto Electric Industrial Co., Ltd.), 18 March, 1983 (18.03.83)

Document 2: JP, 4-176469, A (Terumo Corp.), 24 June, 1992 (24.06.92)

Since the subject matters of claims 6-11 are disclosed in documents 1 and 2 (Document 1: the claims; page 2, upper right column, line 5 to page 3, upper left column, line 18, and page 5, upper right column, line 12 to lower left column, line 9. Document 2: the claims; page 3, upper left column, line 19 to page 4, lower right column, line 14; page 5, lower right column, line 7 to page 7, lower left column, line 5, and page 8, lower left column, line 3 to lower right column, line 12), they do not appear to be novel or to involve an inventive step.

(When the subject matters of claims 6-11 are compared to the subject matter of claim 1, they look different in that the former specifies the mean molecular weight of a methyl vinyl ether-maleic anhydride copolymer but the latter does not. They are the same in all other respects.

Still, the mean molecular weight of methyl vinyl ether-maleic anhydride copolymer specified by the invention of the present application is in a range of those usually used by a person skilled in the art.